

REMARKS

Claims 4-6 stand rejected under 35 USC 103 over McCrea in view of Uhland, Fujimoto and Order. Claim 4 has been amended to include features of claim 6. The amendments for claim 4 also remove possible indefiniteness with regard to the definition of the monitoring system. Thus, whereas claim 4 refers to the monitoring system as including a playing card face up value imprint recognition and registration unit and a playing card face down and face up value imprint comparison unit and claim 6 refers to two or more monitoring systems each having a playing card face up value recognition and registration unit, claim 4 as now amended specifies that the monitoring system includes at least two devices each including a playing card face up value imprint recognition and registration unit.

Amendment of claim 4 in the manner discussed above does not raise new issues and constitutes merely combination of claim 4 with the subject matter of claim 6. Thus, specifying that the monitoring system includes at least two optical electronic devices does not raise new issues relative to the limitation in claim 6 regarding two or more monitoring systems.

Claim 4, as now amended, specifies that the two optical electronic devices are spaced from each other and are at different inclinations, and that the optical electronic devices are connected with the computer through an additional synchronization unit. Support for this amendment can be found at page 8 of the description in the third paragraph.

The subject matter of this application, as defined in claim 4, provides gaming equipment wherein playing cards have their value recognized and registered as they are moved face down and out of a card shoe, and also when they are placed face up on the gaming table by an additional monitoring system. The respective signals are compared to identify if the same value playing card has been detected, and if so an appropriate signal is sent to the computer. If however the same card has not been detected, a rules violation signal is sent to the computer. This means that the

game can be immediately stopped if the same card is not detected, before an error occurs in the playing of the game.

McCrea discloses apparatus in which the value of a card drawn from the card shoe is recognized based on an image of the card, and this value recognition is then compared to a second value recognition performed at the end of a game when the cards are returned to the shuffler.

McCrea also discloses sensors located at each player position, but does not disclose that these sensors can be used to determine the card imprint value, as these sensors are located below the card, whereas the cards are placed face up on the table in the game of Black Jack (see col. 8, lines 12 to 24). There is therefore no check of the recognition value made as the card is drawn from the shoe, until the end of the game.

Therefore the apparatus of the present application provides a significant improvement over McCrea, in that the invention allows the values of the cards to be checked during a live game, rather than waiting until the end of a game before detecting an inconsistency such as a read error or a games rules violation. In contrast, with the McCrea system a whole hand could be played with consequent winnings and losses, before a discrepancy is identified and thus the game can be stopped.

The subject matter of this application also adds an additional level of security to the game relative to a dealer possibly substituting cards. The examiner suggests on page 3 of the Office Action that the system of McCrea prevents the dealer from substituting cards. However, the McCrea system cannot detect the value of the actual cards employed on the table, but only the presence of a card, in contrast to the equipment disclosed and claimed in the present application.

The system disclosed by Uhland includes a video monitor means located above the gaming table which recognises the value of cards placed face up on the table. However, this system suffers from the same disadvantages as the system of McCrea, as this system does not include another independent monitoring

system with which the recognised card values can be compared during running of the game, to determine whether a recognition error has occurred. The only comparison of values disclosed in Uhland relates to values recognised by the same monitoring system, and therefore errors related to, for instance card substitution cannot be rectified during the game run.

Fujimoto also suffers from the same problems as McCrea and Uhland, in that only one system is used to recognise the card values, and no verification from two separate systems is disclosed. In addition, the system of Fujimoto requires cards that include embedded identification tags that can be read wirelessly at a distance of up to a few centimetres (see last sentence of paragraph 34). A person of ordinary skill in the art would recognize that such a system is unsuitable for use in a Black Jack game, as such cards may be read from a distance by anyone with a suitable reader, thereby significantly reducing the security of the game. Therefore it would not be obvious to the person of ordinary skill to combine these disclosures, as this would result in reduced security. Furthermore, as Fujimoto discloses comparing data recorded by the same system, there is no disclosure or suggestion within Fujimoto to combine different monitoring systems to ensure improved security and error checking.

Order also suffers from the same problems as McCrea, Uhland and Fujimoto, in that only one card value recognition system is used.

Claim 4 now includes the feature of a plurality of optical electronic devices being located at different positions over the table, and at different viewing angles. This feature ensures that a card can be viewed by at least one optical electronic device at any given time when a card is placed face up on the table by the dealer. Cards can often be obscured by the hands of the dealer, which can be remedied by placing a plurality of cameras at different positions. In addition, light reflecting off the face of a card can also obscure the view of a card and prevent reliable

recognition, and so placing a plurality of optical electronic devices at different viewing angles can also alleviate this problem.

The examiner has suggested that the feature of the monitoring systems being at different inclinations is disclosed by the combination of McCrea and Uhland, as the face down imprint value recognition unit of the card shoe is at a different angle to the face up card recognition unit located above the card table. Claim 4 specifies that the monitoring system includes at least two face up card recognition and registration units at different viewing angles with respect to each other. This feature is not disclosed or suggested in any of the cited references, whether taken singly or in combination.

The subject matter of this application therefore provides a system whereby multiple readings of a card's value are taken by multiple systems and compared prior to the value of the card being recorded on the game processing computer. None of the prior art suggests or provides any real indication as to how this can be carried out in practice. Therefore the present application defines equipment which provides for multiple automatic card recognitions to be made and compared, and appropriate messages to be provided if different recognitions are made. This therefore prevents the game from crashing or continuing with an error which could affect the outcome of the game and/or the payment of winnings or losses.

In view of the foregoing, applicant submits that the subject matter of claim 4 is not disclosed or suggested by the cited references, whether taken singly or in combination. Therefore, claim 4 is patentable and it follows that the dependent claim 5 also is patentable.

Claim 5 is patentable independently of claim 4.

Claim 5 specifies an image converter equipped with an object glass and configured to compare each part of a card with a full image of the card. The advantages provided by this arrangement are described on page 11 of the specification. The face down

imprint recognition unit is configured to take an image of the whole of the playing card before it is drawn from the card shoe past an object glass. As the card is subsequently withdrawn from the card shoe, the face down imprint recognition unit continually records images of the playing card as it passes. This ensures that a more reliable reading of the card is possible.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'John Smith-Hill', written over a horizontal line.

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